Administrivia

- One purpose of the syllabus is to spell out policies (next slides).

- Most other information will be on the Web, either on my home page (here, office hours) or the course Web page (here).

  A request: If you spot something wrong with course material on the Web, please let me know!

Slide 1

Course FAQ

- "What will my grade be based on?" (See syllabus.)

- "When are the exams?" (See syllabus.)

- "What happens if I can't turn in work on time, or I miss a class?" (See syllabus.)

- "What's your policy on collaboration?" (See syllabus.)

Slide 2

Course FAQ, Continued

Slide 3

- "When is the next homework due?" (See "Lecture topics and assignments" page.)

- "Do I have to use the lab computers for programming assignments?" (No, but that may be the easiest way to make sure they meet my criteria for full credit — I will test on one of these machines.)

- "When are your office hours?" (See my home page.)

  Note that part of my job is to answer your questions outside class, so if you need help, please ask! in person or by e-mail or phone.

Why Is This Course Required?

Slide 4

- (In the new curriculum, it's not. But it was in the old!)

- "ACM says so" (i.e., curriculum recommendations include course on operating systems). Why? Well . . .

- To be a "computer scientist", need to have a broad understanding of computer systems — and operating system is a key part of a computer system.

- Knowing something about how operating systems work helps you write efficient code.

- Many of our courses "demystify" parts of computer systems (e.g., 1320/1321 and Computer Design); so does this course.

- It might even be fun . . .

What Is An Operating System?

Slide 5

- Definition by example?

- Definition(s) from operating systems textbooks?

What Is An Operating System? Continued

Slide 6

- Definition by example:

  - Recent: Windows, Linux, UNIX, BeOs, OS X (Mac), . . .

  - Older: MULTICS, VMS, MVS, VM/370, . . .

  - (Also special-purpose o/s's for special-purpose hardware — e.g., video-conferencing system.)

- Definition(s) from operating systems textbooks:

  - Something that provides "virtual machine" for application programs and users ("top down").

  - Something that manages computer's resources ("bottom up").

- Another view — key part of bridging gap between what hardware can do (not much, but very fast) and what users want.

Course Overview

- Brief history of operating systems.

- Review of what hardware can do, what operating system must/should do.

- Discussion of major functions of operating system — problem(s) to be solved, solutions:

  - Process management.

  - Memory management.

  - I/O management.

  - Filesystem management.

  Focus on principles rather than details.

Slide 7

Minute Essay

- What are your goals for this course?

- What operating systems have you used/installed/experienced?

- Anything else you want to tell me? about the course, what you did this summer, . . . ?

Slide 8